1. (twice amended) An apparatus for full invasive implantation in a body cavity having an inner surface for use with an external source of light to allow repeated, nontraumatic photodynamic treatments of a patient comprising:

an implantable, inflatable balloon for disposition into said body cavity and which when inflated expands into said body cavity to prevent said inner surface of said body cavity from folding in on itself and to thus allow substantially all of said inner surface to be disposed in a direct line of sight to at least one point within an interior of said balloon;

an implantable catheter coupled to said inflatable balloon for fully percutaneous implantation into said patient to access said body cavity;

an optical fiber coupled to the external source of light; and

means for allowing repetitive nontraumatic access of the optical fiber to said body cavity over an extended period of time, through a first lumen of the implantable catheter into said inflatable balloon while segregating the optical fiber from said interior of said balloon and illuminating said inner surface to provide repetitive photodynamic therapy to tissues adiacent to said inner surface.

2. The apparatus of claim 1 further comprising a light diffusing fluid disposed in said inflatable balloon.

4. (once amended) The apparatus of claim 2 where said optical fiber has a distal end and further comprising a light diffuser disposed on said distal end of said optical fiber.

6. (twice amended) The apparatus of claim 1 wherein said subcutaneous catheter has a proximal end and wherein the means for allowing repetitive nontraumatic access comprises an insert removably coupled to said proximal end, said insert having a distal end removably coupled to said first lumen in said subcutaneous catheter and a self healing membrane supported in a proximal end of said insert, said self healing membrane sealingly closing the proximal insert for full subcutaneous implantation.

7. The apparatus of claim 1 wherein said first lumen has a distal end and further comprising a transparent plug disposed in said distal end of said first lumen and sealing said first lumen.

8. The apparatus of claim 1 wherein said subcutaneous catheter has a second lumen defined therethrough used to inflate said balloon.

9. The apparatus of claim 8 further comprising a valve for sealing said second lumen to prevent deflation of said balloon.

10. (twice amended) The apparatus of claim 1 wherein said subcutaneous catheter has a proximal end and wherein the means for allowing repetitive nontraumatic access comprises an insert coupled to said proximal end, said insert is funnel shaped, said insert has a distal end coupled to said first lumen in said subcutaneous catheter and said funnel shape of said insert narrows down to where said insert is coupled to said

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lumen to ease in disposition of said insert into said patient and to facilitate introduction of said optical fiber therethrough without damage to said optical fiber.

11. The apparatus of claim 10 where said insert snugly press fits into said lumen.

15. The apparatus of claim 1 wherein said apparatus further comprises an ambulatory laser and control circuit for repetitive, fractionated photodynamic treatment.

16. The apparatus of claim 15 wherein said apparatus further comprises a detector for recording dosage levels and history applied to said patient by said ambulatory laser and control circuit.

17. The apparatus of claim 1 further comprising a radiation source disposable in said catheter for repetitive, fractionated radiation treatment in combination with fractionated photodynamic treatment through said catheter.

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19. (twice amended) The apparatus of claim 1 further comprising a subdermally implanted remote optical coupler for temporary optical coupling to the optical fiber, and a permanently implanted optical fiber communicating between said optical coupler and said balloon.

21. The apparatus of claim 19 where said subdermally implanted remote optical coupler further comprises a transdermal optical connector.

22. (twice amended) A method of photodynamically, repetitively, nontraumatically treating a tumor resection characterized by a body cavity having an inner surface in a patient using an external light source comprising:

selectively disposing and retaining a photosensitizing drug in cancerous tissue within said inner surface of said body cavity and adjacent thereto;

fully subcutaneously invasively implanting a catheter so that both of a distal end and a proximal end are under the skin of the patient;

fully subcutaneously invasively implanting an inflatable balloon coupled to said distal end of said catheter into said body cavity;

inflating said inflatable balloon in said body cavity by means of a first lumen defined in said catheter to prevent said inner surface of said body cavity from folding in on itself and to thus allow substantially all of said inner surface to be exposed by a direct line of sight to at least one point within said balloon;

repetitively disposing an optical fiber through at most the skin of the patient and through a second lumen defined in said catheter to position a distal end of said optical fiber within said inflatable balloon; and

delivering a fractionated dosage of light from the external light source through said optical fiber to effectively photodynamically treat said tumor resection when said distal end of said optical fiber is disposed through the fully subcutaneously implanted catheter so that repetitive but nontraumatic photodynamic treatment is provided.

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23. (once amended) The method of claim 22 further comprising repetitively removing and reinserting said optical fiber from said subcutaneous catheter.

24. The method of claim 23 further comprising repeating the disposition of said optical fiber into said subcutaneous catheter and the delivering a dosage of light through said optical fiber to effectively photodynamically treat said tumor resection during treatments repeated over an extended period of time.

25. The method of claim 24 where said extended period of time comprises at least one month.

26. The method of claim 24 where said extended period of time comprises more than one year.

27. The method of claim 22 where inflating said inflatable balloon in said body cavity through said subcutaneous catheter inflates said balloon with a light diffusing fluid.

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28. (once amended) The method of claim 22 where disposing an optical fiber through said subcutaneous catheter repetitively positions said optical fiber therein over an extended period of time during which a fractionated dosage of light is repetitively delivered.

29. The method of claim 28 where said extended period of time comprises at least one month.

30. The method of claim 28 where said extended period of time comprises more than one year.

31. The method of claim 22 further comprising providing an ambulatory laser and control circuit to said patient coupled to said optical fiber to repetitively deliver a fractionated dosage of light through said optical fiber to effectively photodynamically treat said tumor resection.

32. The method of claim 22 further comprising disposing a radiation source through said subcutaneous catheter to position a distal end of said radiation source within said inflatable balloon, and repetitively delivering a fractionated dosage of radiation from said radiation source in combination with a repetitively delivered fractionated dosage of light through said optical fiber to effectively photodynamically treat said tumor resection.

33. (once amended) The method of claim 22, further comprising providing a remote access port by implanting said proximal end of the catheter at a position remote from skin covering said recess, wherein disposing said optical fiber through said subcutaneous catheter comprises disposing said optical fiber through said implanted remote access port.

B8 cont'd 34. (twice amended) The method of claim 33 wherein disposing said optical fiber through a remote access port disposes said optical fiber to an optical coupler serving as said remote access port and having a permanent implanted optical fiber coupling said optical coupler to a light emission point positioned in said balloon, and where repetitively delivering a fractionated dosage of light through said optical fiber comprises coupling an external optical fiber to said optical coupler and delivering said fractionated dosage of light through said external optical fiber to said optical coupler.

B9 37. (once amended) The method of claim 22, wherein the catheter has a proximal end, and an insert is coupled to said proximal end; the method further comprising disposing said insert into a cranium and supporting said insert only by said cranium of said patient so that forces applied to said insert are prevented from being transmitted to underlying brain tissue.

B16 40. (once amended) The method of claim 34 where fully subcutaneously implanting the catheter comprises implanting said catheter in a breast.